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(54) Title: ELECTRICALLY CONDUCTIVE NON-AQUEOUS WELLBORE FLUIDS

(57) Abstract

A wellbore fluid having a non-aqueous continuous liquid phase that exhibits an electrical conductivity increased by a factor in order of 10⁴ to 10⁷ compared to conventional invert emulsion comprises from about 0.2 % to about 10 % by volume of carbon black particles, and one or more emulsifying surfactant(s) selected from the class including: nonionic emulsifiers of Hydrophilic-Lipophilic Balance (HLB) less than about 12, and amonic surfactants wherein the counter-ion (cation) is any of alkali metal, ammonium, or hydrogen ions. This wellbore fluid can be used for drilling or completing a well and can be used for providing enhanced information from electrical logging tools, measurement while drilling, logging while drilling, geosteering and the like.